



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,301	02/10/2004	Michael Dunk	122467.801	1500

7590 07/20/2006
Pepper Hamilton LLP
Firm 21269
One Mellon Center, 50th Floor
500 Grant Street
Pittsburgh, PA 15219

EXAMINER

MOSSER, KATHLEEN MICHELE

ART UNIT	PAPER NUMBER
----------	--------------

3715

DATE MAILED: 07/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/775,301

Applicant(s)

DUNK ET AL.

Examiner

Kathleen Mosser

Art Unit

3715

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-65 is/are pending in the application.
- 4a) Of the above claim(s) 19-31, 51-60, 64 and 65 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18, 32-50 and 61-63 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02/10/2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 3715

DETAILED ACTION

In response to the election filed 11/17/2005, claims 1-65 are pending.

Election/Restrictions

1. Applicant's election with traverse of Species A in the reply filed on 11/17/2005 is acknowledged. The traversal is on the ground(s) that the examiner would not be burdened in searching each of the inventions. This is not found persuasive because the subject matter of the two inventions are divergent. Applicant has failed to show how the search would be substantially similar for each of the inventions. Although both species deal with equation editor features on a computer, species A deals with equation editor software for use by a teacher in the authoring and administration portions of an examination. Whereas species B deals with the use of equation editor software in the answering by the student and grading portions of the examination. The field of search, and specific aspects of the claimed species are divergent from each other and do not substantially overlap.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 19-31, 51-60, 64 and 65 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Species B, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 11/17/2005.

Drawings

3. The drawings are objected to because they include shading which obscures the drawings and text of the drawings. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as

Art Unit: 3715

"amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 61-63 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. In order for the method to be statutory it must show a practical application of an otherwise abstract idea. The practical application can be shown through either (a) a physical transformation or (b) production of an otherwise useful, concrete and tangible result. To show the a physical transformation the method must transform an article or physical object to a different state or thing. In the presently claimed invention there is no physical object to be transformed, so clearly a physical transformation does not exist. Further the method fails to produce a tangible result. In order for a result to be tangible it must have a real-world value, or in other words be appreciable. The presently claimed method, as recited in claim 61, results in the transmission of a question to a computer system without any processes performed on the transmitted data, the display of the data or any other appreciable and real-world result. The mere transmission of constitutes an abstract idea and is deemed to be non-statutory. Claims 62 and 63 fail to correct this deficiency as claim 62 only results in a determination

Art Unit: 3715

being made without the determination being indicated outside the system and claim 63 is also results in a transmission.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

5. Claims 1-5, 8, 9, 15-18, 32-36, 39-42, 48-50 and 61-63 are rejected under 35 U.S.C. 102(e) as being anticipated by Alcorn et al (US 2004/0153509). Alcorn et al teaches a system including: a communication network, at least one teacher computer (client computers used by teachers), a plurality of student computers (client computers used by students), where each student computer is operably connected to each teacher computer via the communication network (see Figure 1A and paragraph 125), wherein each teacher computer includes an input device, a display, and a computer-readable storage medium containing program instructions for implementing a teacher equation editor application (see paragraph 270), as in claims 1 and 32. A comparison device 9claim 32, is shown in paragraph 223 (automatic grading functionality). Instructions for implementing a communication protocol wherein the communication protocol controls communication between the teacher computer and the plurality of student computers via the communication network (claims 2 and 33) is shown in at least paragraph 141-142. Paragraphs 223-224 describe the ability for the teacher to create and modify test including the use of multiple-choice questions. Paragraph 283 describes how such assessment questions may include equations. The creation of a multiple-choice question inherently includes entering a question description (the question itself) and the possible answer options to the questions, as in claims 3 and 34 and method claim 61. The teacher computer may include a mouse or pointing device (paragraph 387), as in claims 4

Art Unit: 3715

and 35. Regarding claims 5 and 36, although Alcorn does not explicitly state that the teacher computer includes a keyboard, Alcorn teaches the system having a text editors and text entering functions in paragraphs 269-270. This inclusions of these functionalities implicitly teaches the inclusion of a keyboard within the Alcorn et al system. Regarding claims 39 and 40, the questions and potential answers are stored in the central server, which also includes the comparison device, thus the comparison device stores such information, see at least paragraph 226. Instructions for transmitting the question description to the student computers (claims 8, 41 and 61) receiving a response form the students and comparing the response with the one or more answers (claims 9, 42 and 62) is shown in paragraphs 173 and 223. Transmission to the student of a learning reinforcement signal (feedback) at substantially the same time as the comparison of the response with the one or more answers (grading) completes, as in claims 15-17, 48, 49 and 63 in shown in paragraph 223 and described as "instant feedback". Regarding claims 18 and 50, paragraph 278 describes the equation editor programs as an applet, which is a form of a web browser application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Art Unit: 3715

6. Claims 6, 7, 10-14, 37, 38, and 43-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alcorn et al (US 2004/0153509) in view of Bell et al (US 2004/0126745). Alcorn does not explicitly teach that the question descriptions (claims 6 and 37) and one or more answers (claims 7 and 39) are stored on the teacher computer; that the responses are received in a rendered format (claims 10 and 43), a character syntax (claims 11 and 44), or comprises rendering the response from the character syntax into a rendered expression (claims 12 and 45); and storing an indication as to whether an answer is correct or incorrect (claims 14 and 47).

Bell et al teaches a system and method for teaching math skills to users including recording the results of each response received by the user, see Figure 11. The questions are stored on the user computer see at least paragraph 11. The responses are entered into the system in a rendered or syntactic format, see paragraphs 41-44. It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the grading and answering characteristics of the Bell et al invention into the Alcorn invention so as to provide a manner for grading and answering the mathematical problems involves in the Alcorn assessments.

Allowable Subject Matter

7. Claims 13 and 46 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- a. Sonnenfeld (US 6112049)
 - b. Pellegrino et al (US 6149441)
 - c. Sweitzer et al (US 6018617)


Art Unit: 3715

- d. Martinez et al (US 5211564)
- e. Grant et al (US 2002/0132213 and US 2002/0127533)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kathleen Mosser whose telephone number is (571) 272-4435. The examiner can normally be reached on M-F 8:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Olszewski can be reached on (571) 272-6788. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Kathleen Mosser
Primary Examiner
Art Unit 3715

July 7, 2006